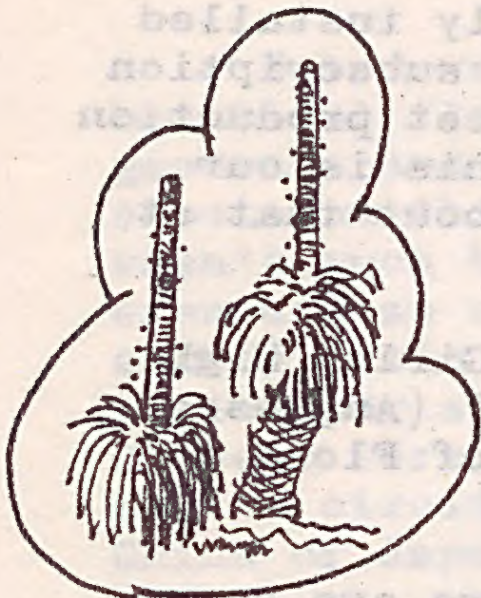


BALLARAT FIELD NATURALISTS CLUB

EXCURSION/NEWS SHEET - APRIL 1977



President: Mr. G. Binns PH. 323670  
Vice-Pres: Mr. L. Fink 861319  
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Mr. P. Fry, 326454. Mrs. P. Murphy 323289  
Mr. R. Borch, 428630. Mrs. B. Gray, 322130.  
Mrs. M. Rotheram, 311211.

Meetings held in the Boiology Section at  
the School of Mines, Lydiard St. Sth. at  
8 p.m. first Friday of each month.

NEXT MEETING: 1st April. Speaker Mr. Edgar Whitbourn. Subject,  
"A Visit to the Cape York Peninsular"

MEETING: 6th May. Mr. J. H. Willis, former botanist at the  
National Herbarium. Title- "A Naturalist in New Zealand."  
This meeting is not being held at our usual room, as we hope  
to welcome many visitors. The venue is the Town and City  
Mission Hall, Cnr. Main Rd. and Eureka St., at 8 p.m. All  
friends and visitors are cordially invited to attend.

EXCURSION 3rd April: "Serendip Wildlife Research Station",  
Lara. Cars will be leaving Crockers at 9.15 a.m. for those  
going for the day. It is proposed to go to Lara via Anakie  
and the Brisbane Ranges. We will meet at "Serendip" at  
1.15 p.m. "Serendip Wildlife Research Station", Lara is  
managed by the Fisheries & Wildlife Division and was estab-  
lished in 1960. Both the lake and surrounding land have  
been modified and developed to cater for a wide range of  
wildlife species that co-exist with normal agricultural  
practices on the farm. Many water birds are to be found  
there, and the day promises to be a very interesting one.

EXCURSION 8th May: "B.O.C." Linton Block survey.  
Afternoon excursion leaving 1.30 p.m.

MARCH MEETING: The Annual Meeting held on 4th March was  
attended by 34 members and some visitors, who were welcomed



by the President. Miss M. White presided for the election of office bearers for 1977, and these were duly installed as above. It was decided to raise the annual subscription to \$2.50 for adults, to cover cost of news sheet production and other expenses. It was also noted that this is our Silver Jubilee year, and there will be more about that at a later date.

MISS MARY WHITE, formerly Principal Ballarat Girls' High School, spoke about the activities of "Angair" (Anglesea and Airey's Inlet Society for the Protection of Flora & Fauna.)

This organisation was formed several years ago by a group of people with the general aim of preserving the natural beauty of the coastal area. The Society has undertaken many projects over the years and Miss White referred to some of these, e.g. a programme of education among children and adults, preservation of the Anglesea River, the replacement of local native flora at an old coal mine, a campaign to eliminate bone seed, exhibitions of wild flowers, reclamation of sand dunes, the establishment of Angahook Forest Park and Edna Bowman Reserve.

After explaining some of the activities of Angair, Miss White showed slides of the plants growing in the Angahook Forest Park, on the sand dunes, in the Edna Bowman Reserve and some slides of her own paintings and collections.

One interesting series of slides showed the improvement of the Anglesea River recreation area after a storm had broken the weir across the river. Angair members removed many truck loads of debris which had been trapped by the weir and which proved the contention of the Society that the weir should never have been built.

Contributed by Mr. H. Hooper.

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THE MARCH EXCURSION was led by Forest Commission Officer, Mr. Ian Sebire, who escorted nine cars to the Ross Creek area of the Enfield Forest. We were able to compare areas that were control burned with evidence of fire no higher than four feet and the undergrowth gently cleared, with the areas where wild fires had gone through in December 1976.



In the latter burn, trees were severely burnt right to the crowns, and ground cover practically non existent.

Noted were many clumps of *Poa australis* with beautiful flower heads, and hovea, ricewort, flax lily, goodenia and other natives coming through. The epicormic shoots on the eucalypts were very much in evidence. There wasn't much bird life - scarlet robin, grey fantail, scrub wren and an unusually large flock of magpies. One enthusiastic young naturalist identified jewell and helicopter spiders and several stick insects and other bugs. Members were intrigued to see a number of spine tailed swifts circling high, no doubt on their way to Siberia, China or Japan. A very enjoyable afternoon altogether.

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W.V.F.N.C.A. CAMP OUT: Hosted by Mid-Murray - Anzac Week end, 23/24/25th April, at "Macropus Park", Appin, near Kerang. "Macropus Park" is an Environmental Study Centre being set up by Mr. George Hardwick who used to be a Fisheries and Wildlife Officer in the area.

Camping facilities and hostel type accommodation are available with meeting hall on site. Reservations should be made to Mrs. J. Haywood, Piangil, 3597.

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#### OPEN SEASON ON WILD DUCK + Some local statistics.

The first day of the open season on Wild duck in the Ballarat area resulted in light bags for shooters. In comparison, the inland waters further north particularly along the Murray system provided much more satisfying results.

Mr. John Clements, Fisheries and Wildlife Department officer stationed in Ballarat, had reported that the main concentrations of birds were at Lake Buloke near Donald, and in the Kerang region. However many shooters attended the swamps and other likely waters around Ballarat.

The following statistics are those of Mr. Clements monitoring of the first morning in the Cockpit Swamp, Black Swamp and S.W. Burrumbeet area:

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# LILIACEAE

Burchardia umbellata (milkmaids)



## LILIACEAE:

Leaves always parallel-veined. Flowers regular, with six segments, free or united into a tube towards the base, usually arranged in two rows. The sepals are frequently indistinguishable from the petals. Stamens usually six, inserted at the base of the perianth. The ovary is superior, i.e. it lies above the sepals and petals and is three celled. Fruit a capule or berry, often coloured and shiny. Rootstock with fibrous roots, which is sometimes thickened into tubers, or the rootstock is a bulb.

S.B.



## EPICORMIC GROWTH IN EUCALYPTS.

On 6th March 1977 when visiting the Ross Creek forest block which was severely burnt by a wild fire on 22nd December 1976, a query arose as to the exact reason how and why the epicormic growths had developed upon the scorched tree trunks. The fire caused some crowns to be wilted because of the cutting off of the sapstream, and others to be scorched.

"The genus Eucalyptus, is generally considered to be one of the most resistant fire-resistant groups of trees in the world. Apart from bark characteristics, which are probably the most important mechanism by which most trees withstand heat effects, the main adaptation which ensure survival of the original tree are the proventitious dormant bud strands and lignotuberous growths at or below ground level.

Epicormic or dormant bud strands are shafts of bud producing tissue passing outwards from the position of a leaf axil. The termini of the shafts are at the wood surface or in the live bark.

On the trunk and branches of a eucalypt there is at least one of these shafts for every leaf that developed as the tree gained height, or the branches extended, making a total of at least 7,000 on the trunk and main branches of a normal tree. They are thus a major factor in determining the persistence of eucalypts in the face of fire.

The dormant bud strands can withstand progressive killing of the bark and phloem until the cambium is reached, and may occasionally survive the death of the cambium.

Lignotubers commence as swellings in the axils of the cotyledons or of the first few pairs of leaves formed in the seedling. Most eucalypt species develop lignotubers. As the seedling ages the swellings in the individual leaf axils fuse and eventually form a bulbous mass. They tend to fold down the stem and envelop the upper part of the root. With increasing age and size



they may bury themselves until the greater part is below the ground. They contain food reserves and numerous regions which correspond to the dormant bud strands on the stem. If the main stem of the tree is destroyed by fire numerous shoots arise from the lignotuber.

Bark is an excellent insulating material and the most important protective mechanism on the tree. The insulating qualities of the bark depend on its structure, composition, density, moisture content and thickness. A considerable thickness of bark is obviously lost by all eucalypt species in anything except the mildest fires.

The dormant buds exhibit marked seasonal changes in activity. Development during the winter months is slow and restricted to a few strands. Activity probably starts to decrease by autumn, and it has been noted that the epicormic shoots on *E. obliqua* and *E. macrorhyncha*, following hot wildfires in March, show little sign of activity until the following September.

In the Ross Creek area the epicormic growths appeared in January. Most of these epicormic branches are shed as the upper crown of the tree regains its dominance, but in the course of being shed they usually cause the formation of gum veins."

(From material supplied by the courtesy of the School of Forestry, Creswick.)

S. Bedggood.

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#### REPORT ON "GLEN CROMIE" CAMP-OUT - 12-14th March.

Members who attended the V.F.N.C.A. camp-out in West Gippsland were rewarded with a most interesting and enjoyable weekend. Main campsite was at Glen Cromie Park, a scenic camping reserve on the road to Neerim-Mt. Baw Baw in a green forest glade sheltered by tall timbers beside the Tarago River. Bellbirds chimed incessantly all day in a ringing chorus.

Saturday morning was free time to explore and enjoy this area with its fern gullies, towering eucalypts and



flocks of Red Browed Finches, Superb Blue Wrens, Yellow Robins, Grey Fantails, Gang Gang Cockatoos and Parrots.

In the afternoon our hosts from Warragul led a scenic tour along the Grand Ridge Road into the Strzlecki Ranges, then on to the River Road along the West Tarwin to see the site of a proposed National Park in the Mount Worth area. On Sunday there was an all-day tour into the high rainfall forest at the headwaters of the Latrobe River beyond Noojee and Powelltown, in the Upper Yarra Dam catchment area. The magnificent timber changing in species as we climbed was the chief interest along the road -- Mountain Ash, Mountain Wattle, Alpine Ash, Shining Gum - then down to the Beech forests where we descended into the eerie green light of the 'other world' of ferns, mosses, lichens and fungi growing among the tree ferns. Highlights of the day were a lyrebird's nest, which delighted Helen, a river bed of rock crystals, which delighted Martin, and a brisk climb up a stout rope out of a rather precipitous fern gully. Ruins of old tramways from the early logging operations were also explored.

Meetings chaired by President Albert Perry of Creswick with Alex Fisher of Mid-Murray as Secretary provided informative exchanges of information on a wide range of subjects including the European carp problem and the urgent need to form an advisory policy on wildlife management to control over-population in protected areas. Jack Wheeler was appointed to the V.F.N.C.A. council.

Contributed by Mrs. M. Rotheram.

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#### OPEN SEASON. contd.

Conditions: Early fog, causing poor visibility until approx. 8 am. Remainder of morning fine and clear.

Shooters checked: All holding current licences, Total 52.

Birds checked in bags: Grey Teal - 28, Black Duck - 24, Shelduck - 10, Chestnut Teal - 1, Mallard - 1. Total 64.

Protected birds detected in bags: Coot - 2, Little Grebe - 2.

Protected Birds also killed: Black Swan - 2.



### The European carp fishery of Victoria.

The European carp (*Cyprinus carpio*) has the distinction of being the most widely cultivated food fish in the world. This cultivation is mainly carried out in Europe, where it is generally has high culinary appeal, and in Asia. The large numbers of carp present in our waterways represent a potential resource. This has prompted the development of a small commercial fishery to utilise it. Most carp taken commercially are caught with electro-fishing apparatus. They and other species are stunned by passing a pulsed direct current through the water. Carp are then netted into the boat by the operator, leaving other species to recover. The first electro-fisherman in Victoria commenced operating in the tributaries of the Gippsland lakes in 1970. A further two have since been lincensed and they operate near Koondrook and Echuca in the Murray Valley. Carp are marketed either as fresh fish for human consumption, as bait for the rock lobster fishery, or for use in the manufacture of pet food; at present most of it is being sold for lobster bait. The demand for fresh carp for human consumption is small in Australia where a wide variety of palatable fish is readily available. The current licensed electro-fishermen have not found the business very lucrative, partly because of fluctuating demand for carp, low prices, and the high cost of setting up electro-fishing operations. The Fisheries And Wildlife Division's policy is therefore to restridt entry to the industry until more information on its viability is obtained. A complicating factor in this picture is that the European carp is, in many situations, an enviromental hazard. Under certain conditions it can destroy aquatic vegetation and lower water quality, destrying other fish values and waterfowl values. The Division has adopted as a primary objective the implementation of an intensive programme aimed at asse-ssing the impact of European carp on other species of fish and or waterfowl. Concurrently, investigation is proceeding into possible biological and genetic controls that might be sought to 'stem the tide' of European carp.

- From Ministry of Conservation Publication.